

# THE SECOND COMING

**Divining**

**All the best from *the Skeptic***

**1986 - 1990**

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All the best from *the Skeptic*, 1986–1990

## Divining

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# Divining



Vol 6 No 3 - 1986

### **Divine Versatility**

Harry Edwards

**“How I investigated the man with x-ray vision ,  
or Gentlemen, please adjust your dress before  
divining”**

#### **Subject**

Maurie Hunt. Age 82. Slightly defective hearing, otherwise in possession of all faculties. (I think!)

#### **Claims**

Able to divine (among others) whether in the ground, under concrete, lead or in containers - bones, teeth (artificial or real), all minerals, fingernails, trees, colours, rocks, underground workers, denominations of coins and banknotes, salt, bore and rainwater.

#### **Background**

Precision aircraft fitter. Opal miner.

#### **Evidence**

Newspaper clipping, headed “You can’t hide anything from Maurie”. Picture of Maurie on Manly Beach with divining rod alleging body buried under sand. Police refused to excavate.

Photograph taken at Lightning Ridge of stones arranged on ground purporting to be the outline of a

buried pre-historic mammal. No detail of internal skeletal bones depicted. No excavation made.

### Principle

Would appear to be “like attracts like”.

### Method

Tubes of poly plastic, bent at right angles, held in hands are passed back and forth over object. The handles are painted in various colours or have pieces of coloured cloth, teeth, bones, metal, coins or banknotes scotch-taped to them.

### Proof

Red-handled tubes pointed at red flower tubes twisted inwards and crossed. It was observed that the tubes were rolled between the thumbs and forefingers; they did not move of their own volition.

### Tests

1. A piece of grey coloured cloth was placed under a 30cm x 20cm sheet of lead on a concrete path. Mr Hunt divined it as pink. This was apparently an unfair test as he claimed that there were rusty water pipes under the path and a box of stones nearby which were emitting ultra-violet rays. The colour of the lead also being grey misled him!

2. Given 5 pieces of coloured material to choose from I selected (unobserved) a piece of white cloth and placed it under a piece of grey-green carpet away from the rusty water pipes and ultra-violet emitting rocks. Mr Hunt said that the cloth was either pink, blue or white. When pressed he guessed white. At this juncture the diviner adjusted his hat so that the brim touched the top of his left ear. He explained that this ensured continuity of “flow”. Satisfied that this sartorial maladjustment was the cause of his previous failure we moved on to the next test.

3. A yellow rose petal in a match box sealed in a plain white envelope was placed under the carpet. It was divined as pink or dark blue. When the envelope was opened he claimed success, the inside lining was pale blue! The fact that the predominant colour (the envelope itself) was white was ignored. For fear of being completely bamboozled with some obscure psychic explanation I moved on to the next test.

4. I placed a pea-sized copper nugget concealed in a match box on top of a pile of lead ingots. It was incorrectly identified. Mr Hunt did not recognize it as being copper, and failed to answer the question why his lead-tipped tubes failed to react to the lead ingots (ten thousand times the mass of the copper).

5. The diviner claimed that divining the denominations of banknotes was his speciality. I placed a \$20 bill under the carpet, then having tried all his tubes from \$100 down to \$1 he identified the hidden bill as \$10. I gave him half marks for that one!

6. Back to colour identification and this time a piece of bright red plastic was hidden under the carpet. It was divined as blue. When confronted, Mr Hunt explained that the colours on his tubes must match

perfectly to work (in this case a spectroscope would have been needed to differentiate). To confirm this he demonstrated with the red flower again (a different hue of red) and the tubes obeyed dutifully. One can only speculate how many tubes would be required to match perfectly the infinite variety of colours in the world. Mr Hunt apologised for his efforts, saying that he must wear the right clothes to be 100% successful (he has a different outfit for each branch of his divining) and that perhaps we would test him again when his laundry was dry. He had also been further handicapped by some acne behind the right ear which had not enabled him to make “ultra-violet contact”.

### Conclusion

At best, poor guesswork.

### Recommendation

In view of my lack of expertise in the field, should any further tests be deemed necessary I suggest the services of a physicist, psychologist and a couturier be retained.

## Vol 9 No 4 - 1989

### *The 1989 Australian Skeptics Divining Tests*

Ian Bryce

### **A report on the Australian Skeptics scientific tests on the water, metal and gold divining abilities of nine respondents to the Skeptics' \$20,000 challenge.**

Throughout its long history, divining (or dowsing) has been a matter for controversy. In ancient Egypt, seers used the movement of rods to foretell the future, rather than detect underground objects as is generally claimed now. Divining flourished in the 16th century in Central Europe for locating minerals, though it was often held in disrepute.

More recently, divining has been viewed with suspicion by most scientists, because of the unlimited claims of some proponents. A “psychic archaeologist” hired by the Melbourne Metropolitan Board of Works laid claim to tracing not only old paths, graves and foundations, but also the “three-dimensional electromagnetic photo-field” left by long demolished buildings (*the Skeptic*, Vol 5 No 3, September 1985).

In Australia, divining has always been a part of our rural culture. Farmers often consult diviners before sinking bores to provide water for irrigation or for stock.

Our extensive mineral resources have led some prospectors to use divining rods alongside seismic,

electromagnetic, geomagnetic and gravitational instruments. In fact, mineral exploration company Zanex even paid Uri Geller \$US250,000 to divine for minerals from an aeroplane (*the Skeptic*, Vol 6 No 2, June 1986).

The typical diviner known by most rural Australians, however, is a local person who has found, originally under instruction from another diviner, that they get a reaction from a stick or bent piece of wire when they walk over certain areas. They attribute this movement to a force of attraction from a buried object such as a stream or mineral vein. When bores drilled at these spots yield water, the belief is reinforced among all concerned.

Despite this widespread belief in divining and its oft-claimed successes, science has no satisfactory explanation for such a force acting on the diviner's rod. Furthermore, the methodical tests which have been done have either been poorly controlled or have yielded negative results.

### Testing of Divining Abilities

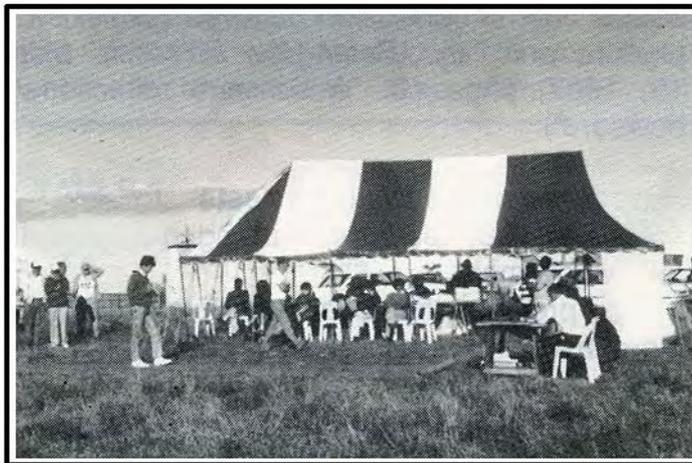
Divining thus qualifies for the Skeptics' \$20,000 challenge for a demonstration of any psychic, paranormal or (in this case) pseudoscientific phenomenon. The prize is offered jointly by our patrons Dick Smith and Phillip Adams, and demonstrates their confidence in the scientific method as the only reliable means to finding out how our universe works.

A previous divining test in Australia was held in 1980. This was organised by James Randi, a well known investigator of paranormal and divining worldwide, and by adventurer Dick Smith. This test provided for water to be directed to flow through buried plastic pipes. The four diviners tested scored no better than chance.

In the years since then, a number of diviners (and psychics) have contacted the Skeptics with a view to winning the challenge. Several have been tested, where a test could be devised for their particular paranormal ability. The considerable current interest (we had 13 diviners on our challenge books), together with a special applicant, indicated that the time was right for a new

set of divining tests in Australia.

That special applicant was a principal research scientist with the CSIRO Division of Water Resources in Canberra. Dr Baden Williams routinely uses scientific methods and instruments such as the Transient Electro Magnetic and Geonics detectors for sensing what lies below the surface. He and fellow scientist Peter Richardson also use divining rods, and claim that the two methods generally agree. They indicate that possible scientific explanations could lie in the rod responding to underground strata of different electrical conductivity, such as are measured by their instruments. Alternatively, there are some claims of a possible unconscious magnetic sense in humans, as believed to exist in pigeons and fish (Refer *New Scientist*, March 19, 1987, page 40: "A sense of direction for dowzers").



The location site of Australian Skeptics 1989 Divining Tests, in Sydney's outer western suburbs on a farm near Wallacia. In the centre is the test ground, and at right the organisers' desk for recording results.

### Aims of the Divining Tests

The 1989 tests were arranged to meet the following aims:

- \* To provide the best possible chance of demonstrating real divining ability, if such exists.
- \* To address the question: does divining work, i.e. can it be used to find hidden objects better than by guessing?
- \* To address the question: what moves the diviner's rod, and why?

\* To conduct the tests and reveal the outcome in an immediate and visual manner, and to reach (via television) a wide section of the Australian public.

This last aim was ably assisted by the early involvement of the Channel 9 program, *A Current Affair*.

### Test Range and Equipment

To achieve these aims, the tests would be held in a field of natural grass over undisturbed soil, an environment in which diviners were accustomed to working. Channel 9 staff kindly made available a farm at Wallacia, west of Sydney, overlooked by the foothills of the Blue Mountains. The resident angora goats and horses added to the atmosphere.

Divining for natural water would require impractical cost and logistics to drill enough test bores for a sound

result. Water flowing in buried pipes had been used in the 1980 tests. Therefore, it was decided to test for objects placed in or on the ground, and concealed by a strip of carpet, providing this was acceptable to the diviners.

Each diviner was to be offered a choice of target objects:

\* Water in plastic containers. This would tests water diviners claiming to be able to locate underground water. The water would be stationary, like most natural artesian water, not flowing. Fresh water or salt water could be chosen.

\* Gold ingots or coins. This would test the many diviners claiming to be able to find buried minerals with their rods or other instruments.

\* Electric cable. This would test diviners claiming to be able to follow buried cables or pipes. If desired, current could be passed through the cable.

The test range for gold and cable consisted of five marked locations in a row, spaced 1.3 metres apart. The test range for water had pre-dug holes to accept two litre plastic bottles of water, with glass disks covering the holes to provide a flat surface.

In practice, two rows of locations were used simultaneously to enable a faster throughput of tests. The strip of carpet 2m x 8m, used to conceal the objects, was attached to a roller at one end and pegged to the ground at the other, to facilitate rolling it up and laying it down as required.

### Concealment

To enable the target object to be placed out of sight of the audience in one of each row of five locations, a cloth-covered wooden frame was constructed. This enabled two “concealers” to operate a random number generator (a die in a bottle) to determine which location was to receive the target object. The concealers would then either place a target object or go through the motions without placing a target object as the frame was moved to the five locations sequentially. At each stopping point, the carpet was unrolled inside the frame to conceal that location.

Having been to all five locations, the two concealers would then vacate the scene to prevent any unconscious clues to the diviners. No one present at

the test would know which location the target was at - true double-blind procedure. Even the possibility of a concealer colluding with a diviner, and hiding according to a pre-arranged schedule, was eliminated by the die method.

While perhaps not the most dignified way for Skeptics to behave - concealers crawled along the ground on hands and knees inside a very hot and humid frame with only their rear ends sticking out - it proved extremely effective in ensuring an equitable and fair method of concealing the targets, agreeable to both organisers and diviners.

### Procedure

After a pre-test checkout to ensure that he was experiencing the normal dowsing reaction, each diviner was led away and out of sight of the test site while the targets were laid. The diviner would then be asked to mark with a peg which one of the five marked locations in the row contained the target object. (Two rows could be accommodated in each concealment cycle to speed things up.) The carpet would then be rolled back to reveal whether the diviner’s peg matched the target’s actual location.

The test runs would be repeated until the aggregate score (see Table 1) reached a divining threshold in which case the test could be declared a success and the cheque for \$20,000 handed over. To reach this successful threshold would require at least eight rows. If the diviner’s aggregate score fell below 50% after at least four rows, then the test result would be considered a failure.

The procedures are described in detail in a “protocol”, which was sent to all divining challengers before the tests and which is available on request, along with the recording sheet, agreement, range layout and hardware description. All worked correctly on the day without snags (thanks to rehearsals) once a sufficient pace was established. At an average of 35 minutes for each diviner, plus overheads for setting up, briefing and breaks, the day was fully occupied.

### Some Comments on the Protocol

This adopted procedure contains some significant differences from most previous tests of divining or

TABLE 1

ROWS COMPLETED	2	4	6	8	10	12	14	..etc
WINNING SCORE	-	-	-	8/8	9/10	10/12	11/14	
FAILURE SCORE	-	1/4	2/6	3/8	4/10	5/12	6/14	

psychic ability. It was intended that scientific integrity would be maintained, while at the same time allowing some experimental features to be incorporated. The major innovations and their intended benefits are discussed here:

**Open-ended procedure:** A sacred cow of previous scientific tests of psychics has been the fixed length, the predetermined stopping point. At this point, any score which has reached a certain high threshold is a success, while any other score is a failure.

The third category introduced in this protocol, borderline, allows all high-scoring diviners the benefit of the doubt. The open-ended protocol allows further trials to be carried out until a conclusive result one way or the other is obtained - the diviner exceeds the 99.99% confidence level and wins the prize, or his score eventually falls to a level more consistent with chance alone than the claimed ability, in this case 50%.

This prevents the situation where a dissatisfied diviner claims that his 80% score entitles him to a prize, or where he in the future promotes himself as being proved 70% successful by Australian Skeptics.

The usual objection to a score-dependent stopping point is that the statistical analysis is rendered much more laborious and less precise. However, a spreadsheet representing a transition diagram was constructed, and allowed full analysis. John Smyrk of Sigma Management Science provided verification.

Most diviners could be expected to require just the two compulsory runs or perhaps three (with 2 rows or trials per run), further runs being needed only as tie-breakers. Thus the average time needed to complete the tests will not be unduly extended by the open-endedness.

Thus this procedure will allow a combination not previously achieved of high protection against payout by chance alone, perceived fairness to above-average scoring diviners, and efficient use of time.

**Choice of winning thresholds:** The set of scores chosen to represent success gives a total probability of a diviner winning by chance alone of 1 in 70,000. This is taken to be an acceptable risk of the patrons losing their money.

**Two trials in each run:** The purpose of this is to make maximum use of overheads (setting up and analysis time) and so achieve a significant result more quickly. Another benefit is the dramatic moment (good for television) when the carpet is rolled back and two results revealed - often enough to make or break the diviner, or our patrons' wallets.

**Immediate revelation of results:** This is also a break with convention. (Of course, diviners not yet

tested must be kept isolated so they do not know any results prior to their tests.)

The advantage is that the diviner's face (and patrons') can be seen live while the carpet is rolled back each time. There were some dramatic moments.

**Visual presentation of results:** A single scene shows the diviner, the revealed target objects, the diviner's pegs and hence the score for that run. This direct presentation has a greater impact on most viewers than a delayed announcement of results, reliant on procedures, records and calculations not seen by the viewer. Randi's recent television special "Exploring Psychic Powers" also benefited from visual presentation of results.

### Agreements with Diviners

An invitation to participate was mailed to all diviners on our challenge books, and to others we had heard about. Advance coverage was obtained on several radio stations and newspapers. The draft protocol was sent to applicants, discussions held, and some improvements were made. Contributions from the CSIRO diviners were particularly helpful.

Each diviner was asked to test his own divining reaction on a target object placed under some carpet; those few who failed to get a reaction obviously did not proceed to the Sydney tests.

In the end, nine diviners accepted. Five were from interstate, and received assistance from Channel 9 in their arrangements. All signed an agreement setting out the rights and liabilities of Australian Skeptics and the diviner.

### The Diviners

As well as the two CSIRO scientists from Canberra, there were some other interesting applicants. The most flamboyant was Ald Dan Gleeson, mayor of the City of Thuringowa near Townsville. Dan is well known locally for being able to divine anything from minerals to the denomination of banknotes. So sure was he of winning that he chartered a Queen Air aircraft to fly his team down to Sydney.

Hans Guggenbuhl, a visitor from Switzerland, divined with his bare hands, which shake and fly apart when reacting.

From Victoria came retired farmer Alex Keddie, who still has a strong accent after many decades in Australia ("A Scotsman never gives anything away"). Alex showed us a small bottle of gold he had found in streams by divining. "Holding a sample helps to tune the rod to the mineral being sought," he explained. Kevin Migga, a quarrying contractor, flew from South Australia with his wife, to participate. Even his daughter

can divine pipes and cables around their house, he says.

Rupert Christie, another retired farmer, came from Sydney. He uses a pendulum as well as a rod. The number of swings indicates the substance being found, e.g. two is water, seven indicates sapphire. We wondered how long it takes him to locate uranium.

Sam Meek, also from Sydney, is a retired farm worker and butcher. He claims to have successfully found water for farmers.

Cliff Cameron came from Vacey, NSW, where he runs angora goats and is a cabinet maker. He can trace pipes, cables and water.

All of the diviners said they did not normally charge a fee, except possibly a donation to charity.

### The Day

The allocated day (Saturday, October 28) dawned warm, sunny but very windy. The next day, Sunday, was also reserved in case of rain, but was not required.

The Skeptics arrived with the required hardware and paperwork, and proceeded to set up the test ranges. Channel 9 arrived with reporter Eric

Campbell, two camera crews, cherry picker, marquee tent, food and drinks. The most dramatic entrance was made by Dick Smith in his own helicopter.

The nine diviners arrived at various stages of the setting-up, and after introductions were briefed on the equipment and procedure. They were given half an hour to familiarise themselves with the target objects and equipment. Several objections arose, but were successfully met. These included one diviner who objected to the carpet covering the targets, claiming he could get no reaction through it. Some curtain material was substituted and proved acceptable. He was the only diviner who found problems with the carpet before the tests.

The diviners were then taken to a shed some distance from the test site to be called one by one for testing.

### Pre-Test Checkout

An important ingredient was the pre-test checkout.

Before his particular test, each diviner was asked to confirm that conditions “here today” were satisfactory, and no particular objects or people which might interfere with his abilities were present. All diviners gave a clear result.

To establish a clear baseline, the diviner then scanned the range without targets present, and confirmed that there were no natural water, cables, minerals or other distractions present. Eight diviners gave a clear result.

However, one stated there were distractions under location number 3 in one row and location number 5 in the other (both were duly marked). We agreed to

proceed on the basis that, knowing there was precisely one bottle of water in each row, he would still be able to deduce where it was: if there was no reaction other than where the distraction was, the bottle must be there; if there was a reaction elsewhere to the distraction, then that must be the target site.

This arose again as a point of objection after the tests, but was eventually resolved even to the diviner’s satisfaction by an

unofficial retest in an area he declared free of distraction (see Harry Edwards’ article in this issue for more information on diviners’ objections and other unofficial tests.)

The diviner was then presented with a target object (in the case of mineral diviners, to hold 100 grams of gold ingot would get anyone’s attention!). He was asked to place it on the ground and scan over it - all diviners had a positive divining reaction.

The target was then placed under the carpet, in full view of all present, and in every case the diviner again confirmed that his rod or divining implement was responding as it usually does when dowsing.

When asked what success rate they expected to achieve, most of the diviners from rural origins expected 70-100%. It is interesting that the two scientists were not keen to commit themselves.

Each diviner’s reactions and answers were carefully recorded on a printed result sheet, along with the actual test results.



A gathering of diviners. From left to right: Dan Gleeson, Rupert Christie, Ian Bryce (Aust Skeptics), Baden Williams, Peter Richardson, Kevin Migga, Sam Meek, Alex Keddie, Hans Guggenbuhl (and interpreter friend). The ninth diviner, Cliff Cameron, was a late arrival.

### Divining Rods & Techniques

There was an interesting variety of divining instruments and techniques used. The most common was wire bent into an L-shape, which would turn at 90° as the diviner crossed a known target object. Sometimes two wires were used, one in each hand, which would cross and even bang together or, alternatively, completely separate and point in opposite directions.

No hazel sticks were present, but Ald Dan Gleeson used a custard apple forked stick. He would start with it vertical, and it would drop downwards rapidly when responding. A diviner who was unable to attend told me he uses a wet gum tree stick.

Alex Keddie preferred the traditional whalebone, but as this rod was broken and no more could be obtained, he now used fibreglass - two straight pieces taped together at the tips and bent outwards in the hands. His rod always reacted with such vigour that it flew out of his hands! He kept it on a string for ease of retrieval.

Rupert Christie demonstrated the use of a pendulum, but switched to wires when the wind proved too strong. Hans Guggenbuhl used no implement at all, relying on his own body's reaction to targets, which was extremely dramatic as he walked quietly over the site, suddenly convulsing with his arms swinging out when he sensed a target.

Viewers of the Current Affair program would have seen a diviner whose pipe vibrated and rotated 180 degrees when energised - rest assured, dear readers, this was only a Skeptic in a lighter moment, in fact, Harry Edwards, who proved most adept at overcoming diviner's objections.

It did not appear to strike any of the diviners as incongruous that such widely divergent "instruments" composed of such differing materials, should all be prone to attraction by the "divining force". In this series of tests, we witnessed pairs of wire rods, which either

converged or diverged, single wire rods, wooden twigs, whalebone, fibreglass and bare hands, as well as a pendulum composed of string and a rubber ball.

### The Test

Following the pre-test checkout, the diviner was escorted out of sight while the concealers did their job inside the portable frame. It is to the diviners' credit that none tried to peep or cheat in any way, and fully cooperated in all respects.

The Skeptics had consulted several magicians in designing the protocol, and one was present on the day. Some other countermeasures were held in reserve in case of a fraudulent attempt to win the prize money, but fortunately they were not required.

The diviner was returned to the test range and asked to divine which location in the row held the target object. A time limit of five minutes for each row was set.

In most cases, the rod responded positively to a particular location. This did not always happen on the first pass, but seemed to reinforce with several tries. Eventually a peg was placed, and the diviner confirmed that his rod was responding normally to that location.

### The Revelation

Then came the moment of truth with the rolling back of the carpet. In most cases, the pegged location was empty, and the target could be seen somewhere else. The

diviners' reactions ranged from disappointment, through consternation, to utter disbelief.

Some tried their rod again at the pegged location, only to find that its movement had evaporated. The excuse-of-the-day prize goes to the diviner who complained that the influence was traveling along the carpet to emerge at a different spot! Dr Baden Williams, to his credit, admitted that he would have to seriously reconsider his views on divining.

In a proportion of the revelations, a oneout-of-two-rows-right result was achieved, which generally



**One of Australian Skeptics' patrons, Dick Smith, arrived in truly spectacular form by helicopter. He brought with him cheques from himself and Phillip Adams for \$10,000 each. Had any of the diviners reached the success level, they would have received \$20,000. Dick's presence throughout the test and his constant enthusiasm was greatly appreciated by all present.**

allowed further tests according to the aggregate score. The most thrilling result - both rows right - was achieved on two occasions. Spontaneous applause greeted the delighted diviner. Unfortunately, further tests failed to repeat the success.

### Results

Table 2 shows the aggregate number of rows

Diviner	From	Score
<b>Water</b>		
Sam Meek	NSW	3/8 = 37%
Kevin Migga	SA	2/6 = 33%
Dan Gleeson	Qld	1/4 = 25%
Hans Guggenbohl	Switz	0/4 = 0%
<b>Cable</b>		
PeterRichardson	ACT	4/10 = 40%
Baden Williams	ACT	1/4 = 25%
Cliff Cameron	NSW	0/4 = 0%
<b>Gold</b>		
Rupert Christie	NSW	1/4 = 25%
Alex Keddie	Vic	0/4 = 0%

correct out of the number of rows run for each diviner. Scores ranged from 0 out of 4 up to 4 out of 10 (remember, each diviner was tested until he either dropped below 50% or won the money).

No diviner came close to a winning score, the first such being 8 out of 8.

The total score for all diviners was 12 correct out of 48, which is close to the average expected by chance alone of 1 in 5.

Interestingly, Current Affair reporter Eric Campbell was asked before the tests to think of a number of numbers out of the top of his head - no divining skills necessary, no test site involved, just pure guesswork. He scored 11 out of 48.

### Conclusions:

Does Divining Work?

Scientifically, we can conclude that the results are consistent with chance alone operating. The results are not consistent with a significant divining ability to find hidden objects. In a word, divining did not work on those tests on that day.

When one remembers all the pre-test checks in which the diviners all confirmed that their usual divining reaction was present, this must cast grave doubts on their abilities at other places and other times.

When one also considers that the Skeptics offer was open to all diviners in Australia, and other similar offers and tests have been carried out in other countries, the evidence is very strong that divining doesn't work at all.

### What Moves the Rod?

Even if divining can't find hidden objects, still something moves the rod. Diviners experience an apparently real force on the rod - it can even fly out of their hands. They attribute it to attraction by the buried object being sought.

Our tests revealed, however, that the rod moves even when no object is present - as long as the diviner believes it is present. Can the diviner's muscles move the rod without his knowing?

Careful observation of diviners in action, and even of the televised Current Affair tape, shows slight movement of the hands before the rod swings. This was confirmed in a test where I was holding the rod and a diviner was holding my hands

- a definite movement was felt, although the diviner was not aware of doing it.

Thus our evidence shows that the rod is moved by the diviner's muscles, although not necessarily consciously.

We can pursue the question further, and ask what subconscious processes are in action. Possible mechanisms are:

- \* When the target object is visible - sight of the object.
- \* When the target object has just been hidden - knowledge of where the object is.
- \* When divining for natural water- visual clues (right or wrong) such as vegetation, land forms or soil features.
- \* When divining for cables and pipes - visual or logistical clues.
- \* When divining for randomly placed objects, as in our test - this one is much harder. There are no clues whatsoever. One can postulate a small random effect, which is reinforced by expectation in thesecond and third pass. This is similar to the "butterfly effect" in chaos theory.

### Summary

The tests were considered to be a highly proper and successful test of divining abilities. Much effort was made to ensure that the diviners were agreeable to the test protocol and with the actual situation on the day. Similar effort was made in ensuring that no other influences, outside of a true divining ability, could be thought to be involved in any successful demonstration of divining ability - this includes cheating by any party.

The tests were true double-blind - the random numbers were generated on the spot, and neither the organisers, the audience nor the diviners knew which locations held the target objects.

The tests unequivocally showed that on this occasion no divining ability was evident, despite the diviners' previous demonstrations on site of their abilities.

I would like to thank all the Skeptics involved, both in Australia and abroad, who were involved in designing, rehearsing and carrying out the tests. I would also like to thank Channel 9 and especially the crew of *A Current Affair* for their assistance in running the tests. And lastly, but by no means least, I would like to thank the diviners themselves for their cooperation, enthusiasm and in some cases extreme effort in taking part in the tests. Though some were very disappointed with the results and some provided post-test excuses, they cooperated fully throughout with a sense of fair play and not a little good humour.

### **Skeptics' Divining Tests - the Willingness to Self-Delude**

Harry Edwards

The protocol devised by the Australian Skeptics for testing water and metal diviners in conjunction with TCN 9 on October 29 was mutually acceptable to both diviners and the testing team with only minor objections that were subsequently resolved. There were, however, some unofficial tests carried out, which were independent of the official tests. These were not done under fully controlled conditions, but they shed some interesting light on the nature of divining and the beliefs of diviners.

When Dick Smith and James Randi carried out tests on diviners almost ten years ago, Dick was concerned that the diviners would face a "crisis of confidence" once they realised that their claimed powers were not substantiated in scientific trials. He said to Randi that the diviners would be ruined when they realised their powers were groundless. Randi, with much experience of these types of tests, was not so concerned. He

gave the diviners 24 hours to formulate reasons why they failed on this occasion, and why they were normally successful. In fact, the reasons came sooner than this, and like many claiming paranormal abilities in tests before and since, those justifications bore little semblance to rationality or the real conditions of the test.

The ability of paranormalists to convince themselves of their powers knows no bounds, and their ingenuity in twisting the facts to suit their own preconceptions is nothing short of remarkable. The 1989 Australian Skeptics divining tests were no exception.

### **The Mayor**

Ald Dan Gleeson, mayor of Thuringowa, North Queensland, who was so confident of his dowsing abilities that he chartered a plane from North Queensland to attend, claimed in writing and prior to the test to be able to divine and find a vast variety of hidden objects, including a dot on the back of a beer coaster, nominate the value of a coin eight weeks after it had been removed from its hiding place, decide the value of hidden banknotes, and of course to dowse the more mundane minerals and water.

When interviewed on TV, he claimed success in divining water from a helicopter, and from a plane flying at 9500 feet. When asked by the interviewer how highly he assessed his chances in the Skeptics divining test, he replied "100 per cent", and fully expected to take home the \$20,000 prize money. He was so confident, in fact, that while seated in the pavilion with the other participants and spectators he was urging them to back him at odds saying that they would stand to win a fortune.

However, in the pre-trial runs to determine whether the protocol was acceptable, and despite the fact that the other diviners raised few if any objections, he objected to the carpet used to cover the targets on the grounds that "it negates".

Newspaper and plain paper were also rejected as concealment media. I was then asked if I had any cloth. There was some curtain material available and he acceded to its use.

The targets used for the water divining test were blue-painted PET plastic bottles containing two litres of tap water. I placed a bottle under the curtain material and the mayor, holding his forked wooden divining twig, approached it with confidence. Suddenly, with a downwards jerk, the forked twig pointed towards the bottle. Yes, it worked perfectly, the bottle contained water and he was happy to have the material used in the test runs.

The bottle I had used was, in fact, empty!

The same bottle was then used to simulate the protocol conditions (in a hole, and covered with a glass disk and the curtain material) to confirm that this would be satisfactory to both parties. Again, he had no difficulty in divining water in an empty bottle.

As he had previously objected to newspaper as a concealment (on the grounds of the print, perhaps?) I suggested, “just out of curiosity” (but without disclosing the purpose) trying a different bottle, this time an unpainted one but with a large Coca Cola label on it. The clear liquid inside was plainly visible. This was for my benefit to ascertain whether the metallic content of the print or paper was a viable excuse. Again the rod quivered as he triumphantly demonstrated that it indicated that the bottle contained water.

The bottle I used contained two litres of pure (laboratory tested to contain no water) ethanol.

This negated his objection to newsprint and paper, although the fact never occurred to him. It also cast into doubt his claim that he could differentiate between water and other liquids.

It should be stated categorically, here, that the empty bottle and the bottle containing pure ethanol were never used in the actual divining tests. In fact, they were only used for these impromptu and unofficial tests of Ald Gleeson some time before the actual tests began.

### The Search for Gold

Alex Keddie was a likeable old Scot, whose divining rod was made from a whalebone stay taken from a lady’s corset and attached to his wrist with a piece of elastic cord. He didn’t divulge how such a rare item came into his possession, but judging by the twinkle in his eye it could have been a souvenir from a misspent youth.

Alex’s proudest piece of evidence in respect of his divining ability was a vial containing a few grams of gold which he claimed to have found when divining in Scotland. He anticipated a 100% success in finding the two 100g gold ingots that were to be used as targets under the carpet.

Like the other diviners tested before him, he was

asked to check the site for any possible distractions prior to making his test runs - this was an individual version of group efforts carried out before the tests began, during which he reported no problems. As he approached one corner of the carpet, his whalebone vibrated violently, taking off from his hands and wrapping itself around his wrist. He felt there was a strong reaction from that corner of the site.

Divining test organiser Ian Bryce rolled the carpet back, and asked Alex to try it again, this time on the bare earth. There were apparently no problems. Once more with the carpet rolled flat, Alex reported problems, and decided there was “something in the carpet” which was distracting him at that corner.

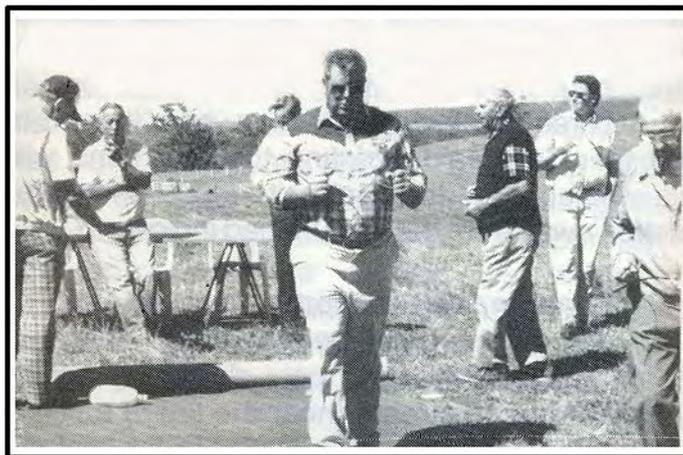
I walked over and bent down as if to minutely examine the area. I found a ten cent coin close to the edge of the carpet. Someone had dropped this, I said, and having removed the offending item asked him to try again. This he did, and declared that the interference had disappeared. He was not aware that I had placed the coin on the spot a fraction of a second before saying I had found it - the coin was not present when he was having problems, but after its removal the problems disappeared with it. In other words, he

blamed an object which had not in fact been present.

Later, after he had joined the other unsuccessful diviners, still puzzling over why their powers had deserted them, he produced a piece of insulation tape to which a minute piece of copper was adhered. “Bury this anywhere you like,” he said, waving his arms in the direction of the open paddocks, “and I’ll find it.” Waiting until he was engaged in conversation elsewhere, I secreted the copper under a convenient pile of horse dung, hoping that I could remember that particular pile among the many strewn across the paddocks. I then called him back.

“Where is it?” he asked, to which I replied “You’re the diviner, you find it.”

He was obviously not overjoyed with the prospect of searching the surrounding 500 hectares, and asked me to indicate a more precise area. This I did, confining it to a narrow strip about one metre wide and ten



Assorted diviners testing the site during the pre-test checkout, which proved an invaluable procedure for ensuring a fair test. At centre is Kevin Migga of South Australia, who had trouble with extraneous distractions.

metres long.

Three small steps for Alex, and “there it is, just there” he said, pointing to the ground with his whalebone. It wasn’t; it was almost three metres away from the spot he had indicated.

### Changing Distractions

Before the tests began, Kevin Migga of South Australia was the only diviner to register an underground stream (near the top of a hill) or ore bodies running perpendicular to the test site at two locations. Nonetheless he agreed to continue with the tests, making allowance for the apparent distractions.

After the test, which he failed with a score of two out of six, he said that if he were allowed to nominate his own test area, his success rate would improve.

He chose a site he considered satisfactory, this about four metres downhill of the original site and parallel with it. The stream or ore-bodies were not present. Using a one dollar coin, which he provided, placed on top of the carpet he showed how his divining rod reacted. While Kevin’s back was turned, Tim Mendham then placed the coin under the carpet about ten centimetres from the edge - not a very scientific procedure but this test was done purely as a favour to Kevin and was not to be considered part of the challenge for the \$20,000. Kevin failed to find it by several metres. Two more attempts both failed.

Kevin’s conclusion: “It’s the carpet”, despite having tested the targets under the carpet during his pre-trial and having reported no problems.

### Conclusions

Considerable pains were taken prior to the official test runs to ensure that the diviners were confident that they could find specified targets under certain conditions, as outlined in Ian Bryce’s article.

Any excuses, concerns or complaints, no matter how trivial or irrelevant, were resolved on the spot and prior to the test to the satisfaction of the diviners.

In the pre-test checkouts, they demonstrated with unerring accuracy their ability to find all the targets, when they knew where they were. Yet, when those same targets were concealed at random, using the



**Not a couple of farmers who drifted onto the test site, but in fact leading Skeptics, Barry Williams (left) and Harry Edwards, at the results table. Harry’s pipe featured prominently in TV coverage, leading some to think that it had a future as a divining rod.**

same method of concealment, they were unable to achieve any more accuracy than by chance. The reason why should be obvious when the results of my unofficial tests are analysed.

Ald Gleeson was told there was water in the bottle, he thought there was water in the bottle, and thus divined it as such. His objection to paper with our without print on it was shown to be without foundation when he divined through

the large label on a bottle, and although I never said what liquid the bottle contained, because it looked like water and he saw what he perceived to be water, he divined it as such.

The little deception with the ten cent coin played on Alex served to demonstrate that the alleged interference from another source was purely a figment of his imagination. This conclusion was reinforced by Kevin when he selected his own interference-free site and his own target and still failed to find it. It should also be noted that in the official tests he blamed the site for his failure; in the unofficial test he blamed the carpet.

One other point should be mentioned. One end of the carpet in the official test runs was secured to the ground with large steel tent pegs, yet when searching for the gold or electric cables none of the participants suggested the pegs were a distraction and none of the participants’ rods were distracted or in any way effected by the pegs, despite the fact that their divining rods passed closer to the greater metal mass of the steel pegs than the metal concealed under their feet. When asked about this, Peter Richardson (a CSIRO technical officer and diviner) said that he “just ignored them”, as, apparently, did his rod.

Assuming that these 30cm long by 5mm wide steel spikes protruding above the ground could be safely and conveniently ignored, their existence not registering in the diviner’s consciousness and therefore of no account, how could a diviner expect to locate other metals of smaller mass even further physically and psychically removed from his person, perception and consciousness?

There is no doubt that it is difficult for the average

person to concede that a belief held throughout life has been misplaced, even when that belief is demolished step by step in front of their very eyes. Subsequent feedback from diviners who participated in the test adequately demonstrates this reluctance.

Sam Meek, who achieved the highest score in the water divining test (37%) was probably more honest than he realised when he admitted in a newspaper interview “that there is a certain amount of chance” involved in water divining, but offered no other excuse for failing to take out the prize.

Some of the others were not so willing to allow for the role of chance. For example, one diviner “worked out a plan” to “eliminate the effect that the gold rings on the fingers of spectators would have”, but when the time came to be tested he had lost his notes! He considered that because of the presence of gold wedding rings and the carpet used to cover the targets, that the test was “a bit unfair”. He apparently did not stop to consider why, if minute pieces of metal situated, at the closest, three metres away from the test site affected his powers, his own wedding ring, his gold fillings, his belt buckle and the coins in his pocket, all considerably closer, did not have any adverse effect. And what about the two metal divining rods themselves - wouldn't they tend to be permanently attracted to each other rather than a more distant target?

### None So Blind?

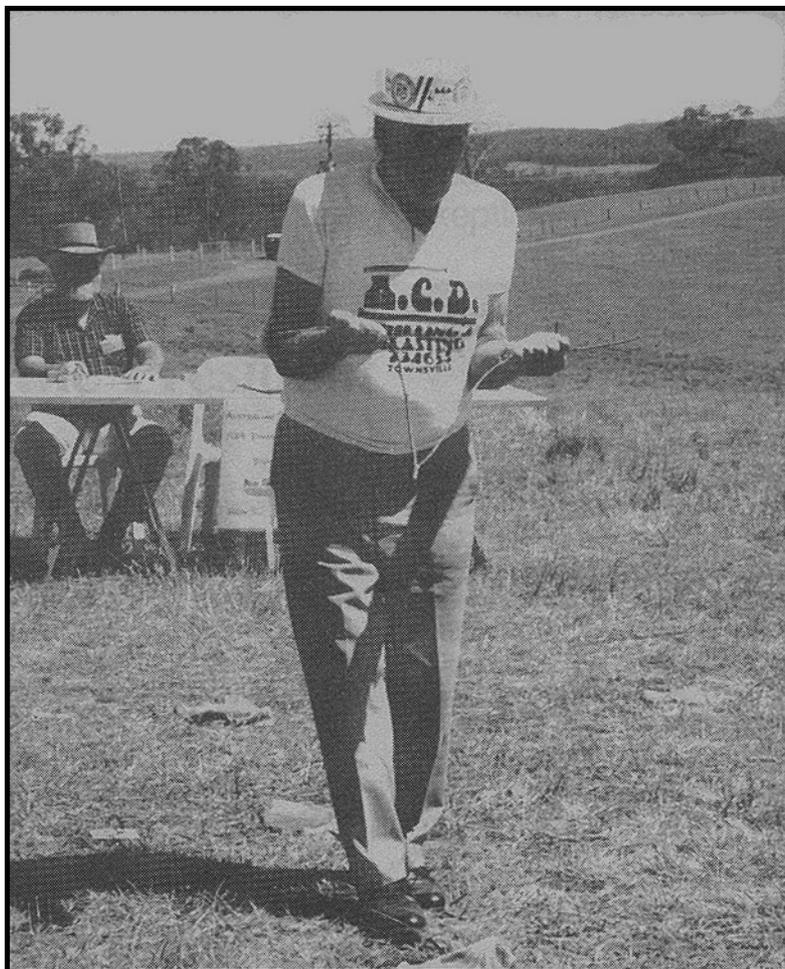
The point that needs hammering time and time again, and which the diviners seem to forget no matter how often it is repeated, is that prior to the test each diviner was given a dry run, step by step, to ensure that there were no distractions that could be raised as objections later, including the nearby dam, the power lines, the observers, the carpet, the plastic bottles, and the paint, etc, and every participant agreed and signed a form to the effect that the test was perfectly fair.

Furthermore, they demonstrated they could unflinchingly locate the targets under the agreed protocol conditions as long as they could see them or knew where they were. Once out of sight and randomly placed, however, their powers mysteriously deserted them!

Conclusion? In my opinion, divining is a delusion.

### Footnote:

Despite Ald Gleeson having convinced himself that he can divine water in empty blue-painted plastic bottles, he has taken one back to Thuringowa for further experimentation and to have the paint analysed!



Ald. Dan Gleeson with Barry Williams looking on.  
Taken from the cover of Vol. 9 No. 4 - 1989 of *the Skeptic*.



Ald. Dan Gleeson with Ian Bryce.

# THE SECOND COMING

All the best from *the Skeptic*, 1986–1990

Divining



Top: Ian Bryce and the Diviners.  
2nd: Ian Bryce going over the test procedures.  
3rd: One of the water containers.  
4th: Checking the results of one of the tests.  
5th: Setting up for another test.

